



## ***SOIL SAMPLING VASQUEZ BOULEVARD & INTERSTATE 70 SITE***

**PHASE I SAMPLING WAS CONDUCTED IN MARCH AND APRIL 1998**

### **BOUNDARIES**

- ☆ East 56th Avenue on the north
- ☆ East 38th Avenue on the south
- ☆ South Platte River on the west
- ☆ Colorado Boulevard on the east

### **SAMPLING METHOD**

At least three samples were collected from each residence, park or school sampled. Two samples were collected from the top two inches of soil beneath the grass, one in the front yard and one in the back yard. One sample was collected to a depth of at least 12 inches.

### **HOW WAS PERMISSION TO SAMPLE OBTAINED FROM THE RESIDENTS?**

EPA sent out letters with access agreements attached and asked property owners to sign the agreements and return them to EPA. Denver tax assessor records were used to identify all property owners within the above boundaries.

Only 20% of those who received the letters sent back the access agreements. EPA then canvassed most neighborhoods once during the day and once during the evening. These efforts resulted in 1152 people granting EPA permission to sample. All 1152 properties were sampled. Approximately 11 of these were schools or parks.

### **RESULTS OF PHASE I SAMPLING**

As a result of Phase I sampling, 46 properties were identified as potential candidates for "removal action" or immediate clean up because either arsenic or lead concentrations were greater than the removal action levels established by EPA for these two chemicals. The removal action levels are 450 parts per million arsenic and 2000 parts per million lead.

Of these 46, 7 contained arsenic or lead above the action level at a depths greater than 2". These 7 were considered by EPA to not pose an immediate threat. They will be reconsidered in the long term clean up program. One property is a parking lot and one property had concentrations of lead in the soil above the action level as a result of flaking lead based paint. This left a total of 37 properties as candidates for immediate clean up action. Before clean up was undertaken, EPA re-sampled these 37 properties to confirm the concentrations. The re-sampling is known as Phase II.

## **PHASE II SAMPLING WAS CONDUCTED IN JULY AND AUGUST 1998**

### **BOUNDARIES**

- ☆ East 56th Avenue on the north
- ☆ East 35th Avenue on the south
- ☆ South Platte River on the west
- ☆ Colorado Boulevard on the east

### **SAMPLING METHOD**

At properties which were not sampled in Phase I, (first time sampled properties) the same sampling method was used as was used in Phase I. The 37 properties which were candidates for immediate clean up action were sampled differently. At these 37 properties, 5 samples were collected from the top two inches of soil in the front yard and these five samples were mixed to form one "composite" sample. Similarly in the back yard 5 samples were collected from the top two inches of soil in the back yard and mixed to form a second "composite" sample. One sample was collected at each property to a depth of at least 16 inches. In addition, three samples were collected from any existing gardens.

### **HOW WAS PERMISSION TO SAMPLE OBTAINED FROM THE RESIDENTS?**

Similar to Phase I efforts, EPA sent out letters with access agreements attached and asked property owners to sign the agreements and return them to EPA. Denver tax assessor records were used to identify property owners.

1180 letters were sent to property owners. 219 were returned to EPA granting permission to sample. This is approximately 20% response. EPA sampled 204 of these 219 properties as well as the 37 clean up candidates for a total of 241 properties.

### **RESULTS OF PHASE II SAMPLING**

As a result of Phase II sampling, 21 properties were identified as candidates for immediate clean up because either arsenic or lead concentrations were confirmed to be greater than the removal action levels established by EPA for these two chemicals. The removal action levels are 450 parts per million arsenic and 2000 parts per million lead.

Of these 21, clean up actions were completed on 18 properties. Property owners at the other 3 residences did not grant EPA permission to do the clean up.